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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,285	11/18/2003	Mark Robert Kohls	132820IT/YOD GEMS:0231	6082
7590 03/06/2006			EXAMINER	
Patrick S. Yoder FLETCHER YODER P.O. Box 692289 Houston, TX 77269-2289			NGHIEM, MICHAEL P	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/716,285

Applicant(s)

KOHLS, MARK ROBERT

Examiner

Michael P. Nghiem

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 and 38-40 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-36 and 38-40 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

The Amendment filed on December 27, 2005 has been acknowledged.

### ***Withdrawal of Allowability***

The indicated allowability of claims 7, 8, 23-26, 35, 36, and 37 (now cancelled) is withdrawn in view of the newly discovered reference(s) to Soderberg et al. (US 2004/0186357), Berg et al. (US 6,704,602), and Le et al. (US 2004/0138557). Rejections based on the newly cited reference(s) follow.

### ***Claim Objections***

Claims 2, 10, 14, 18, 20, and 24 are objected to because of the following informalities: "ECG" is not defined. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

Art Unit: 2863

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Soderberg et al. (US 2004/0186357).

Regarding claim 23, Soderberg et al. discloses a computer program, provided on one or more computer readable media, for acquiring a set of physiological data (Abstract, lines 1-6), comprising:

a routine for acquiring a set of symbols (via scanner 630) from a printed medium (bar code, paragraph 0155, line 1), wherein the set of symbols digitally represents a set of physiological data representative of one or more physiological parameters of interest (paragraph 0155, lines 1-2); and

a routine (routine executed by computer 530) for extracting the set of physiological data from the set of symbols (paragraph 0150, lines 3-12; paragraph 0155).

Regarding claim 24, Soderberg et al. discloses that the set of physiological data comprises one or more digital ECG waveforms (waveforms of ECG, paragraph 0182).

Regarding claim 25, Soderberg et al. discloses a routine for storing the set of physiological data on a computer-accessible medium (paragraph 0155, lines 1-4).

Regarding claim 26, Soderberg et al. discloses a routine for printing at least a portion of the set of physiological data (paragraph 0155, lines 6-8).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-22, 27-35, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohls (DE 101 50 364) in view of Berg et al. (US 6,704,602).

Regarding claims 1, 9, and 29, Kohls discloses a physiological monitoring system (Fig. 1), comprising:

- a data acquisition component (15) configured to acquire a set of physiological data (paragraph 0016, line 1, Fig. 1);

- a data processing component (16) configured to generate a first representation of the set of physiological data in a first format (paragraph 0016, lines 3-4, 23 displays physiological data, Fig. 1), and to generate a second representation of the set of

physiological data in a second format, wherein the second format is a digital format (paragraph 0017, lines 2-3);

- a printing component configured to print at least the second representation onto a suitable medium (paragraph 0024, line 4).

Regarding claims 2, 10, 14, 18, and 20, Kohls discloses that the set of physiological data comprises a set of ECG data (paragraph 0015, lines 1-2).

Regarding claim 3, Kohls discloses that the printing component is configured to print the first and second representations (paragraph 0024, line 4).

Regarding claim 4, Kohls discloses two or more sensor leads (14) connected to the data acquisition component via respective lead wires (13) (Fig. 1).

Regarding claim 5, Kohls discloses a storage component (18) configured to receive at least one of the first representation or the second representation (Fig. 1).

Regarding claim 7, Kohls discloses the data processing component is configured to reconstruct the first representation from the second representation (printing the digital data onto a print medium, paragraph 0024, line 4).

Art Unit: 2863

Regarding claim 8, Kohls discloses the printing component is configured to print the first representation onto a printout (digital data is converted print format before printing).

Regarding claims 11, 16, and 22, Kohls discloses a printout of at least a portion of the set of physiological data (paragraph 0024, line 4, paragraph 0025).

Regarding claims 12 and 15, Kohls discloses that the set of physiological data comprises at least one digital waveform (digital format, paragraph 0017, line 3).

Regarding claims 13, 17, and 27, Kohls discloses a method for storing physiological data (Fig. 1), comprising:

- acquiring a set of physiological data representative of one or more physiological parameters of interest (Fig. 1);

- generating a set of symbols (digital format, paragraph 0017, line 3) from the set of physiological data, wherein the set of symbols digitally represents the set of physiological data (Fig. 1);

- printing the symbols (paragraph 0024, line 4).

Regarding claims 19 and 28, Kohls discloses a method and system for acquiring a set of physiological data, comprising:

- acquiring a set of symbols from a printed medium with a device, wherein the set of symbols digitally represents a set of physiological data representative of one or more physiological parameters of interest (printing the physiological data, Fig. 1);
- extracting the set of physiological data from the set of symbols (reading the physiological data).

Regarding claim 21, Kohls discloses storing the set of physiological data on a computer-accessible medium (18).

Regarding claim 30, Kohls discloses that the data processing component is configured to generate a plurality of symbols digitally encoding the set of physiological data (via 25, paragraph 0020).

Regarding claims 31 and 38-40, Kohls discloses that the plurality of symbols comprises binary data representative of the set of physiological data (digital data, paragraph 0017).

Regarding claim 32, Kohls discloses that the first format is an analog format (paragraph 0020, lines 1-2).

Regarding claim 33, Kohls discloses that the analog format comprises at least one of a waveform, a chart, or a graph (analog waveform, paragraph 0020).



Art Unit: 2863

Regarding claim 34, Kohls discloses that that the second format comprises a binary encoding of the set of physiological data (digital format of physiological data, paragraph 0020, lines 1-3).

However, Kohls does not disclose:

- regarding claims 1, 9, 13, 17, 19, and 27-29, at least partial redundancy of the set of physiological data.
- regarding claim 35, at least one of error detection or error correction information.

Nevertheless, Berg et al. discloses at least partial redundancy of the set of physiological data (column 8, lines 16-18, since redundancy would include at least partial redundancy) for the purpose of ensuring correct receipt of transmitted information (column 8, lines 18-19).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Kohls with at least partial redundancy of the set of physiological data as disclosed by Berg et al. for the purpose of ensuring correct receipt of transmitted information.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohls in view of Berg et al. as applied to claim 1 above, and further in view of Freeman (US 2003/0144699).

Kohls as modified discloses the claimed limitations as discussed above except a scanning component configured to read at least one of the first representation or the second representation from the suitable medium.

Nevertheless, Freeman discloses a scanning component (optical scanner, paragraph 0076, line 13) for the purpose of reading from a suitable medium (paragraph 0076, lines 10-16).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Kohls as modified with a scanning component as disclosed by Freeman for the purpose of reading from a suitable medium.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohls in view of Berg et al. as applied to claims 1, 32, and 35 above, and further in view of Le et al. (US 2004/0138557).

Kohls as modified discloses the claimed limitations as discussed above except that the error detection comprises at least one of a check-sum or a cyclic redundancy check.

However, Le et al. discloses a cyclical redundancy check (paragraph 0038, line 15) for the purpose of verifying data.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Kohls as modified with a cyclical redundancy check as disclosed by Le et al. for the purpose of purpose of verifying physiological data.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (571) 272-2277. The examiner can normally be reached on M-H.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Michael Nghiem', with a stylized flourish at the end.

**MICHAEL NGHIEM  
PRIMARY EXAMINER**

Michael Nghiem

March 2, 2006